

YOUR PERSONALITY TYPE IS: LOGICIAN (INTP-A)



MIND

This trait determines how we interact with our environment.



ENERGY

This trait shows where we direct our mental energy.



NATURE

This trait determines how we make decisions and cope with emotions.



JUDGING



TACTICS

This trait reflects our approach to work, planning and decision-making.



IDENTITY

TURBULENT

This trait underpins all others, showing how confident we are in our abilities and decisions.▼



*picture from 16personalities.com

Personality Predictor

By Daniel Vega

Agenda

- Introduction
- Project Overview
- Exploratory Data Analysis
- Data Pipeline
- Model Selection
- Deep Learning
- Sentiment/Emotional Analysis
- Conclusion

Introduction

The Myers–Briggs Type Indicator (MBTI) is based on the conceptual theory proposed by Carl Jung, who had speculated that humans experience the world using four principal psychological functions – sensation, intuition, feeling, and thinking – and that one of these four functions is dominant for a person most of the time.

PERSONALITY TYPES KEY



Extroverts

are energized by people, enjoy a variety of tasks, a quick pace, and are good at multitasking.



Introverts

often like working alone or in small groups, prefer a more deliberate pace, and like to focus on one task at a time.



Sensors

are realistic people who like to focus on the facts and details, and apply common sense and past experience to come up with practical solutions to problems.



Intuitives

prefer to focus on possibilities and the big picture, easily see patterns, value innovation, and seek creative solutions to problems.



Thinkers

tend to make decisions using logical analysis, objectively weigh pros and cons, and value honesty, consistency, and fairness.



Feelers

tend to be sensitive and cooperative, and decide based on their own personal values and how others will be affected by their actions.



Judgers

tend to be organized and prepared, like to make and stick to plans, and are comfortable following most rules.



Perceivers

prefer to keep their options open, like to be able to act spontaneously, and like to be flexible with making plans.

SOURCE: "Do What You Are: Discover the Perfect Career for You Through the Secrets of Personality Type" by Paul D. Tieger, Barbara Barron, Kelly Tieger

BUSINESS INSIDER

Project Overview

The data was collected from the Personality Cafe Forum:

- ◆ 8600 observations
- ◆ Last 50 posts of each user
- ◆ Each user is labeled with their corresponding MBTI

Goal

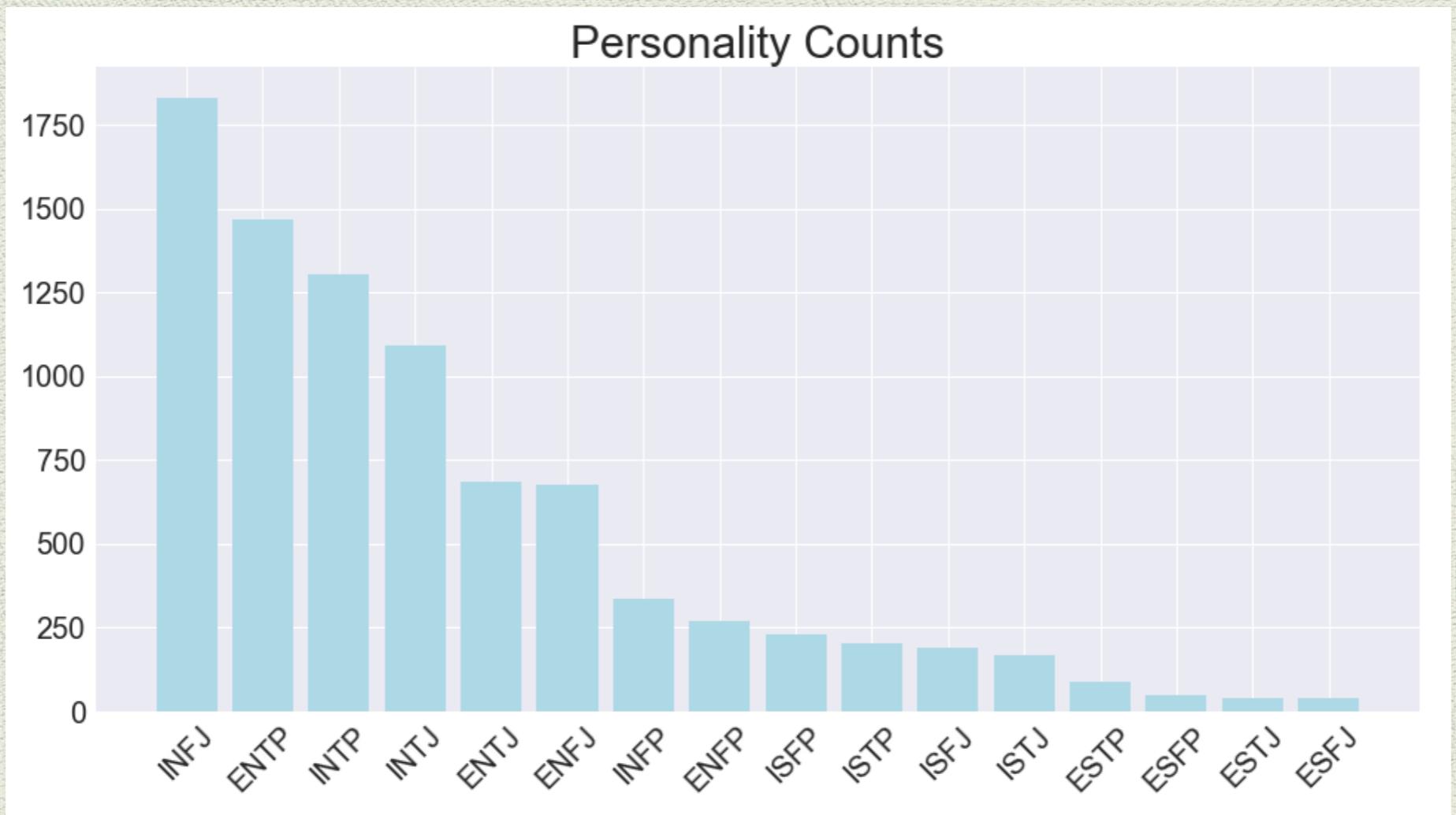
- ◆ Predict the personalities of a user based on their posts

Motivation

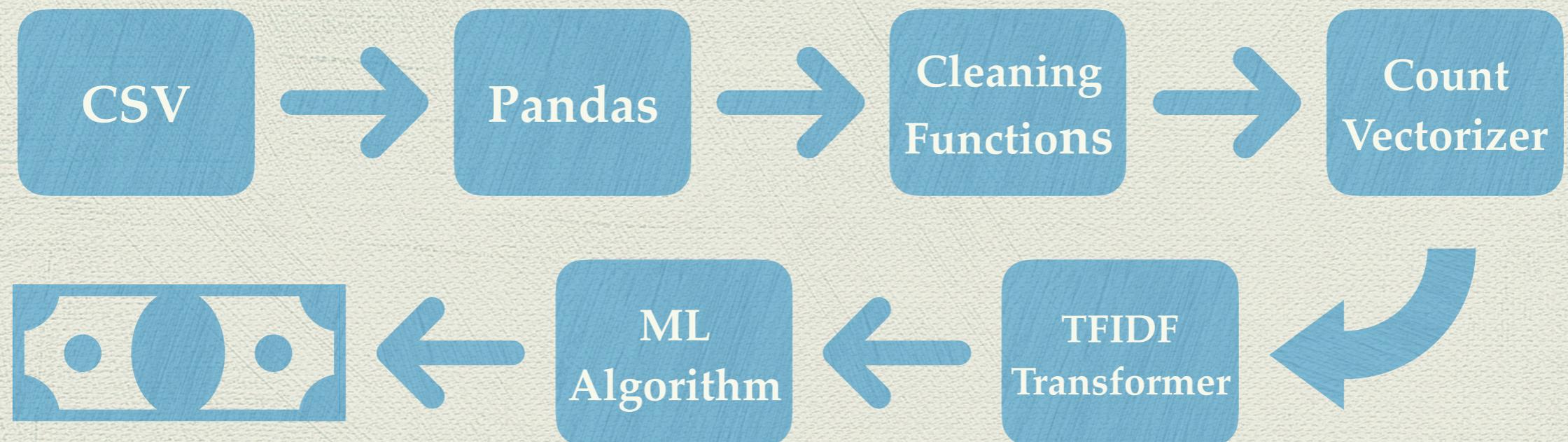
- ◆ Through my management experience, I've learned that knowing someone's personality type allows us to have more meaningful interactions with them. It also helps us create an environment where we increase their chances of success

Exploratory Data Analysis

Our EDA showed that we have very unbalanced data. This will be an issue when we get to modeling. It also showed that the least common personalities in the population were the MOST represented in our dataset.



Data Pipeline



Model Selection

The following models were made:

■ Naive Bayes	Accuracy = 22.05%
■ Logistic Regression	Accuracy = 63.00%
■ Random Forest Classifier	Accuracy = 36.15%
■ Gradient Boosting Classifier	Accuracy = 65.08%
■ Support Vector Machine	Accuracy = 67.00%

After splitting the targets from 16 to 4, our accuracy goes to 78%

Deep Learning

Built a Neural Network with accuracy of 98.66%
This is what the confusion matrix looked like:

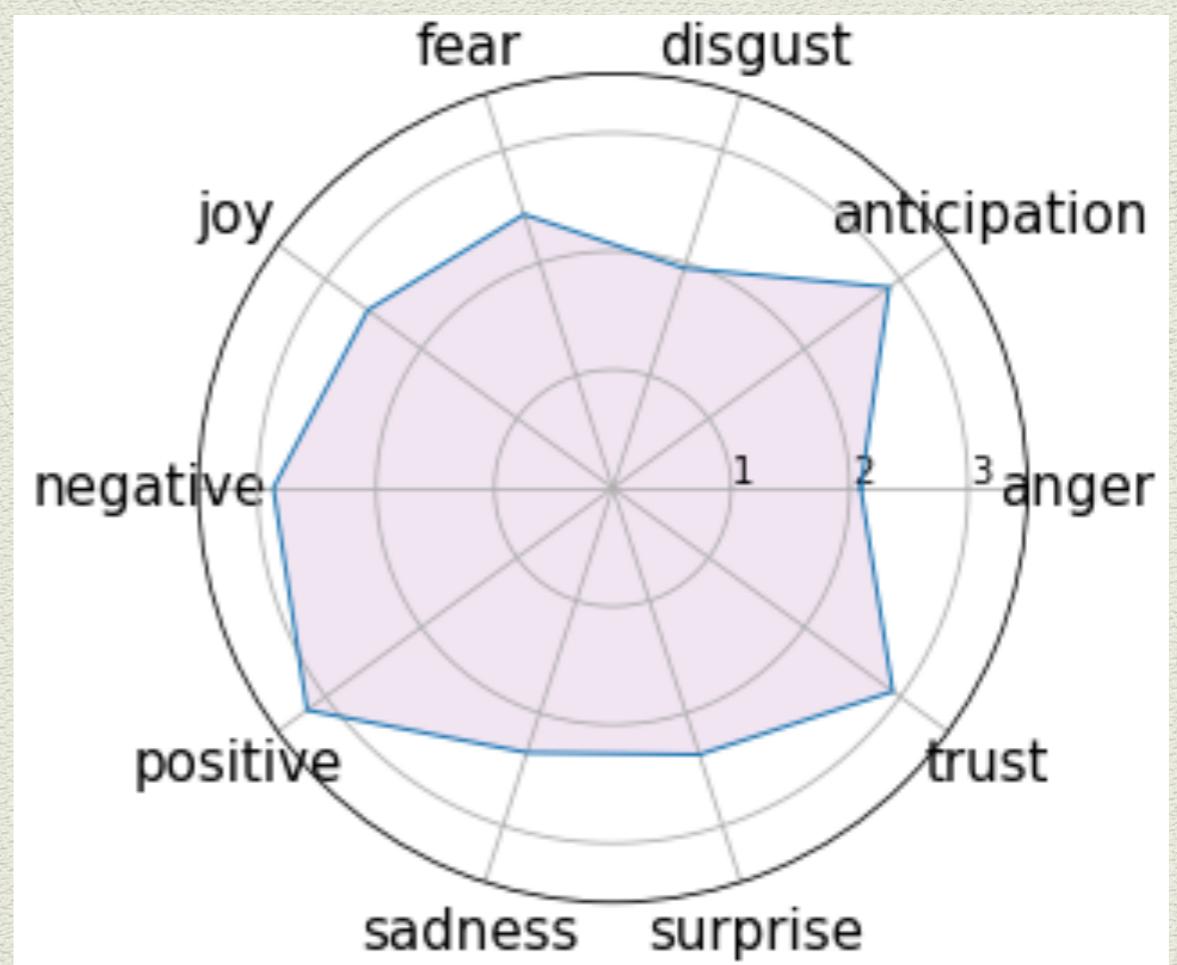
Sentiment / Emotional Analysis

Used a lexicon, which was created by the National Research Council Canada, to derive emotions from the text.

INTP



ENTP



Conclusion and Next Steps

In conclusion, we took the data and went through the following steps:

- Performed Exploratory Data Analysis
- Created a Data Pipeline
- Trialed and selected a ML Model
- Created a Neural Network
- Performed Sentiment/Emotional Analysis

The next step would be to see how it performs in a setting where the purpose of the conversation is not to discuss personality types. Feel free to test the model.

Questions?

WHERE? WHEN? WHY?
Q&A WHO? WHAT?
WHY? HOW? WHEN?
WHO? WHAT? WHERE? WHEN?
WHY? HOW?